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## ***December 2016 Edition***

### **December Meeting Minutes**

Russ Ramirez, K0WFS called the meeting to order at 1:00 PM. 23 were in attendance.

Introductions made around the table.

Meeting minutes from October 2016 were approved.

### **Old Business:**

- Jim, AT0O, reminded the group that the Minnetonka club meets the second Monday of every month at 10 AM. All are welcome
- Russ, K0WFS, reminded everyone about the bill before congress right now.
- Paul, N0TYE, reports that there is \$2278.40 in the checking account. All bills to date have been paid.

### **New Business:**

- Elections will be held in January. The VP, Treasurer and Officer at Large positions need to be filled. Anyone interested should contact Russ.
- The next Build-a-Thon will be held in March. There was some discussion about building the Vector Network Analyzer offered by F4GPH. Russ

will post details of this kit on the reflector.

### **Show & Tell**

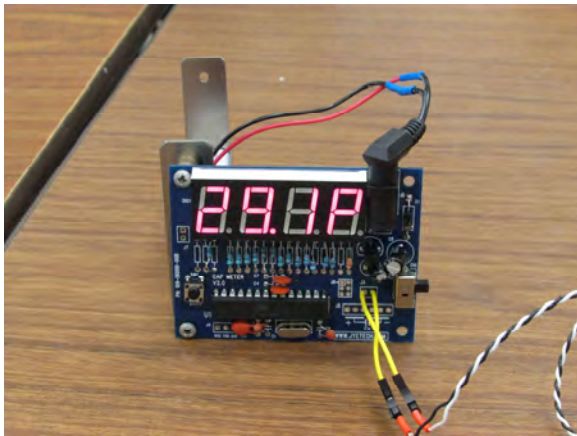
**Chuck Stroud**, KA8HDE, brought in an older ARRL handbook for anyone who might like it.



**John Krawczak**, KJ0P, brought the SparkFun component analyzer kit he built at last month's build-a-thon. He gave us a demonstration of the unit and reports that it is quite accurate. He also brought in a Ramsey Ghost Finder kit which measures magnetic fields via a hall effect device and also measures electrical fields.



**Steve Ulrich**, NW0C, brought in a code oscillator he recently built. It uses a discreet multi-vibrator circuit rather than the more common 555 timer chip. He is hoping to learn how to use his Vibroplex Bug now.

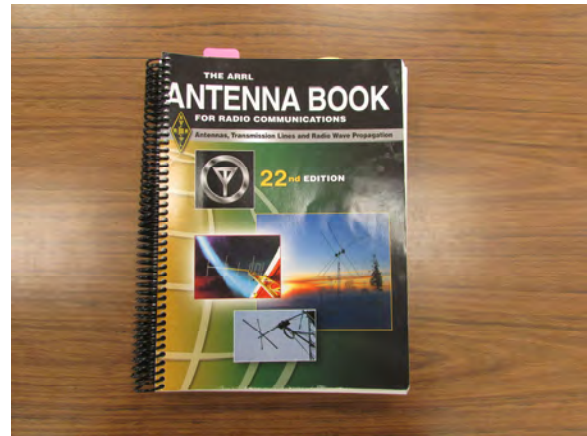


**Craig Siegenthaler**, W7BGO, brought in his new Elecraft KX2. He also showed us the modified Motorola microphone he is using with the unit along with a modification he made to the speaker. He reports that the radio works well.





**Mike Burk, KD0JXE**, showed us a couple of reference books he had spiral bound at Kinkos. He reports that this makes them much easier to use. There was also a nice discussion regarding the book: *Build Your Own Transistor Radios*.



**Mert Nellis, W0UFO**, showed us a signal generator he recently acquired from China for \$50. He reports that it works quite well. Frequency output up to 25 MHz.





## December Presentation

**Russ Ramirez**, K0WES, spoke on WSPR/Weak Signal Propagation Reporter. Russ described the technical details of how this beaconing system works and what you needed to do to get one set up. He gave us a good description and explanation of how the signal is composed, the forward error correction, timing, etc.

Two things are critical with this protocol. Accurate time and frequency stability. A very interesting presentation!!



Respectfully submitted,  
Steve, NW0C

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### Club Officers:

*President:* Russ Ramirez/K0WFS  
*Vice Pres:* Jeremy Mooney/KC0LDI  
*Secretary:* Steve Ulrich/NW0C  
*Treasurer:* Paul Bushouse/N0TYE  
*At Large:* Craig Johnson/AA0ZZ

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